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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,587	12/03/2003	Hiroyuki Tsujimoto	1076.1092	3452

21171 7590 06/12/2007

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EXAMINER
CEHIC, KENAN

ART UNIT	PAPER NUMBER
2609	

MAIL DATE	DELIVERY MODE
06/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/725,587	TSUJIMOTO, HIROYUKI	
	Examiner	Art Unit	
	Kenan Cehic	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

DANG T. TON
SUPERVISORY PATENT EXAMINER

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☒ Claim(s) *10* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/03/2003*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 119 (e) as follows:

Certified copy of original foreign application and English translation was not provided by the applicant.

Claim Objections

2. Claim 5-7, and 10 are objected to because of the following informalities:

For claim 5, the terms "the interface" on line 3 seems to refer back to "the interface device" recited in claim 5 line 1.If this is true, it is suggested to the applicant to change "the interface" to - - the interface device - -.

For claim 6, the terms "the register" on lines 1-2 was not mentioned in claim 1. It is suggested to the applicant to change "the register" to - - a register - -. Similar problems exist in claim 7, line 2.

For claim 6, the terms "the operation mode" on line 2 seems to refer back to "a mode" in claim 5 in line 3. If this is true, it is suggested to the applicant to change "the operation mode" to - - the mode --.

For claim 10 line 10, the term "the interface" seems to refer back to "interface device" recited in claim 10 line 1. If this is true it is suggested to the applicant to change "the interface" to - - the interface device - -.

Claim 7 is objected to since it depends on claim 6.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claim 1, 3, 5, 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Cook et al (5,504,757).

For claim 1,Cook et al, discloses an interface device (see column 4, lines 39-44) for performing data transmission (see column 2, lines 34-35) with a further device connected

to a network (see Figure 2 and column 6, lines 27-30) at any of a plurality of transmission rates that are regulated (see column 2 lines 48-51), the interface device comprising: a transmission rate control circuit (see column 4 lines 29-32) for changing its own operation speed (see column 2 lines 41-43 and see column 8, lines 7-10) when the transmission rate must be switched (see Figure 3 and column 7 line 64 through column 8 line 4).

For claim 3, Cook et al teaches The interface device (see column 4, lines 39-44), wherein the transmission rate control circuit (see column 4 lines 29-32) switches to a transmission rate enabling low-speed transmission during low-speed transmission (see Figure 3 and column 7 line 64 through column 8 line 4) and switches to a transmission rate enabling high-speed transmission when high-speed transmission is required (see column 7 lines 51-53).

For claim 5, Cook et al. disclose The interface device (see column 4, lines 39-44) , further comprising a register for storing (see column 3 lines 47- 51) among the plurality of transmission rates (see column 9 lines 4-6), a transmission capacity of the interface itself (see column 10 lines 25-28), a transmission rate that is presently possible (see column 7 lines 55-58), and a transmission rate to be switched to next (see column 7 lines 60 – 64).

For claim 6, Cook et al. discloses the interface device (see Figure 1B and column 4, lines 39-44), wherein the register stores information (see column 3 lines 47- 51) for a mode

for maintaining the present transmission rate (see column 8 lines 36-39) or information for a mode for switching to a transmission rate enabling the minimum speed transmission operation (see column 8 lines 7-10).

For claim 8, Cook et al. discloses a method for controlling (see Figure 3) an interface device (see Figure 1B and column 4, lines 39-44) for performing data transmission (see column 2, lines 34-35) with other devices connected to a network (see Figure 2 and column 6, lines 27-30) at any of a plurality of transmission rates that are regulated (see column 2 lines 48-51), the method comprising:

changing operation speeds of each device (see column 2 lines 41-43) and the interface device (see column 2 lines 41-43 and see column 8, lines 7-10) when switching to a high-speed transmission rate is required (see Figure 3 and column 7 line 64 through column 8 line 4) and each device included in a route to a transmission destination (see column 7 lines 53-58) is compatible for the high-speed transmission (see column 7 lines 19-21).

5. Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Domon et al (US 6,950,408 B1).

For claim 1, Domon et al, discloses an interface device (see column 3, lines 50-53) for performing data transmission (see column 4, lines 9-14) with a further device connected to a network (see column 5, line 33) at any of a plurality of transmission rates that are regulated (see column 7 lines 20-23), the interface device comprising:

a transmission rate control circuit (see Figure 1; 41,42) for changing its own operation

speed (see column 4 lines 14-21) when the transmission rate must be switched (see Figure 3 and column 7 line 64 through column 8 line 4).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Cook et al (5,504,757) in view of Harumoto et al (US 6,460,097 B1).

For claim 2, Cook et al. teaches and interface device (see column 4, lines 39-44), wherein the switching of the transmission rate is executed (see column 2 lines 41-43 and see column 8, lines 7-10) when data transmission to the further device is required (see column 2, lines 34-35). Cook et al. does not teach that the further device request a

transmission rate switch. Harumoto et al for the same or similar field of endeavor, teaches when a request to switch to a different transmission rate is received from the further device (see column 6 lines 10-14). Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to combine the request for transmission rate switch feature into the network as presented by Cook et al. Both inventions present a IEEE 1394 based network with a root node, that controls data transmission. Thus it would be possible to combine those two features. The motivation is to prevent buffer overflow and to better regulate data transmission in the network.

9. Claim 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over by Cook et al (5,504,757) in view of background of Domon et al (US 6,950,408 B1).

For claim 4, Cook et al teaches all the claimed invention as described in paragraph 4. Cook et al does not teach switching to a low-speed transfer rate when connection is set up. Domon et al, from the same or similar field of endeavor, teaches the interface device (see Figure 1), wherein a transmission rate control circuit (see Figure 1, 41) switches to a transmission rate enabling minimum speed transmission operation (see column 8 lines 46-49 and 54-62) when starting operation for connection to the network (see column 8 lines 40-46) or when data is not being transmitted. Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to combine this feature into the control circuit that Cook et al teaches. Both control circuits are computer based,

thus it would have been possible to reconfigure the software to add this feature. The motivation is to provide configuration data at the lowest supported speed so that all nodes in the network, which might only support the lowest speed, are configured correctly.

For claim 9, Cook et al discloses all the claimed invention as described in paragraph 4. Cook et al does not discloses determining and setting the operation mode when high-speed transmission is needed. Domon et al. from the same or similar field of endeavor, discloses a method for controlling an interface device (see Figure 1), further comprising: determining whether the high-speed transmission is required or not (see column 6 lines 25-31) after the high-speed transmission ends (see column 6, lines 15-21, setting physical ID, sets the speed to low speed of 100 Mbps);

setting information for a mode for continuing high-speed transmission (see column 6, lines 6-12) when the high-speed transmission is required (see column 5, line 23-25), and setting information for a mode for switching to a transmission rate enabling minimum speed transmission operation (see column 6 lines 34-39) when the high-speed transmission is not required (see column 5 lines 14-18, conversion is needed when sending packets from a 400 Mbps to 100 Mbps node). Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to combine the method of control as disclosed by Domon et al. into the teachings of Cook et al. Both references employ as similar IEEE 1394 bus architecture, thus it would have been possible to implement such a control method via software. The motivation is that one is able to have efficient bus usage, preventing wasted bandwidth.

10. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over by Cook et al (5,504,757) in view of background of Cook et al (5,504,757).

For claim 7, Cook et al discloses all the claimed invention as described in paragraph 4.

Cook et al does not teach that settings, in the interface device, are reset after a bus reset.

The background of Cook et al, does discloses that the interface device (see column 4, lines 39-44), wherein setting of the operation mode stored in the register (see column 3 lines 47- 51) is changeable by a bus reset (see column 1 lines 55-62). Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to the bus reset feature into the network taught by Cook et al. Both systems present an IEEE 1394 network, which employs the identical structure, thus such a bus reset and the associated storing of information could be implemented via hardware/software. The motivation is that after a bus reset the network topology can be rebuilt, in order for the network to function properly.

Allowable Subject Matter

11. Claim 10 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-5,621,901 A	Morriss et al.
US-2001/0042153 A1	Adachi, Kaoru
US-2002/0004872 A1	Ono, Koichi
US-2002/0112106 A1	Henehan et al.
US-6,509,988 B1	Saito, Tomoki
US-6,526,036 B1	Uchida et al.
US-6,633,586 B1	Heiss, Herbert
US-2004/0037233 A1	Suzuki et al.
US-6,829,225 B2	Staats, Erik P.
US-6,870,855 B2	Fujimori et al.

The references cited above are to show relevant interface devices and methods.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KC

DANG T. TON
SUPERVISORY PATENT EXAMINER